

U-N-C-L-A-S-S-I-F-I-E-D

9 May 1961

MEMORANDUM FOR: Record

SUBJECT : Wide Band Portable Tape Recorder

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NO CHANGE IN CLASS.
 DECLASSIFIED
CLASS. CHANGED TO: TS S C
NEXT REVIEW DATE: _____
AUTH: HR 70-2
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1. The Mincom Division of The 3-M Mfg. Co. are in process of repackaging their CM-100 series recorder in a portable version. This machine is good for either 1.0 or 1.2 Mc band pass at 120 IPS and corresponding band pass at fractional speeds. It will be suitable for conversion to 1.6 Mc as soon as the new heads are perfected, probably later this year.

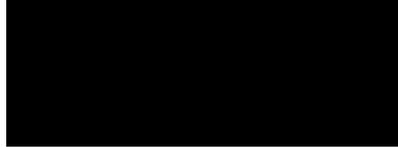
2. The equipment will be available for delivery during October 1961. Price will be of the order of \$22,500 for the 1/2 inch, 7 track model and \$35,000 for the 1 inch, 14 track model.

3. The equipment will use the Standard CM-100 top plate. It will provide for either 7 or 14 tracks of record-only plus fully equalized playback in a high quality scope of one or two selected channels at one time. It will include provision for full remote operation plus local operation at all 6 speeds. The built in square-wave calibrate provision, which has proved invaluable in the CM series, will be included. It will be suitable for ambient temperatures up to about 85° Centigrade, and, with the addition of thermostatically controlled shutters, for any foreseeable low level of ambient temperature. With the currently available 14 inch reels it will provide 12 minutes of record at 120 IPS, and with 15 inch reels which the deck will accommodate, up to 15 minutes at 120 IPS. Record times are appropriately multiplied at lower speeds. The equipment will meet Navy splash-proof and shock and vibration tests. The equipment is being designed to function in any position, vertical, horizontal, and at various tilts. Although the equipment uses dc drive and has a record bias oscillator RIF levels have comfortably passed Navy specifications and no problems involving the current rack-mounted model have been reported.

4. External power requirement will be less than one kilowatt ac at from 30 to 500 cycles/second. It will be packaged in two boxes, the box containing the tape transport being from 40 to 44 inches long, less than 21 inches from side to side, and less than 14 inches deep, in the 1/2 inch, 7 track model weighing less than 200 lbs, and in the one inch, 14 track model, less than 250 lbs. The power supply package will be less than 14 inches long, of the same width and depth, and weigh less than 60 to 70 lbs. These dimensions were specifically designed to assure easy passage through 25 inch circular Navy hatches.

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5. This memorandum is intended to alert those concerned with the design and modification of advanced mobile collection systems to the availability of much more data recording capacity than has previously been available.



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